

Request for Partnership

Date: August 15, 2016

Project: **Connected and Automated Vehicle Testing**

Introduction

The Michigan Department of Transportation (MDOT) is looking for potential partners to partner with MDOT and 3M to use the I-75 construction project for testing connected and automated vehicle technology. The project is a multi-year project with various staging thus providing unsurpassable opportunities for testing. The project is currently scheduled to begin mid-August 2016 with completion in November 2017. In coordination with the construction team it looks as testing opportunities will be in existence starting mid-September 2016 thru mid-December 2016 at which time the project will shut down for the winter months and begin again around mid-May 2017.

Michigan's construction season provides a great opportunity for the testing of vehicle communications with infrastructure components such as; construction signing, barrels, barrier wall and pavement markings. MDOT and 3M have come together to provide a real life opportunity on the local and freeway network to look at the communication interaction between the infrastructure and the vehicle and also from vehicle to vehicle.

MDOT and 3M intend to instrument the infrastructure in multiple ways in order to provide a vast amount of conditions to effectively test the performance of the vehicles and communications. The potential opportunities for testing with the I-75 construction project are;

Traffic Signs – provide technology on the construction signs that will communicate with the vehicles in a variety of scenarios such as detour routes, advance signing, entering the work zone and local roadways.

Temporary Traffic Control Work Zones –

- Traffic Devices – provide technology on the traffic barrels/Drums/Cones that will communicate with the vehicles in taper areas and local roadways.
- Barrier Wall – provide technology in the work zone that will communicate with the vehicles for the location of the barrier wall.

Pavement Markings – provide technology in work zone that will communicate with the vehicles in taper areas, ramps, and local roadways.

Requirements

At this time, MDOT has not limited the testing to a specific set of technologies but the interested partners will need to work closely with MDOT and 3M to insure that the vehicle technology can communicate with the infrastructure technology.

This is open to any and all interested parties. There is no funding for this project it is a pilot project with partners to provide a live testing opportunity. Following the due date a meeting will be scheduled for all interest parties at the MDOT office in Southfield to meet the team and discuss technical details.

This is not a competitive request. MDOT reserves the right to begin discussions with any, all, or none of the Respondents. MDOT may or may not, at its discretion, issue one or more Requests for Proposal (RFPs) related to this subject at a future date.

If you have questions and/or are interested in participating as a partner with MDOT in this unique opportunity please email the MDOT Project Manager, Michele Mueller at muellerm2@michigan.gov.

Michigan Department of Transportation

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Due to the nature of the construction timeline the due date for submitting your 1 page letter of interest to participate is due no later than **COB on August 29, 2016 unless other approved by the MDOT Project Manager.**

Background

Michigan has made impressive strides over the past decade in improving the mobility of motorists and reducing the number of traffic fatalities on our roads. However, in recent years, the trend of sharp declines in fatalities has “leveled out”. Michigan has adopted the Towards Zero Death initiative, and believes that Connected Vehicle and Connected Traveler technologies will be at the forefront of accomplishing this goal.

MDOT continues to be aggressive in research, planning and implementation of a connected and automated vehicle (vehicle-to-infrastructure) communication system. Partnerships have been instrumental, and will continue to be, as true connected and automated vehicle environments will exceed the capabilities of any one agency, automobile company, or technology company.

Working in partnership with automobile manufacturers and suppliers, universities, local agencies and a number of others in the public and private sectors, MDOT has set a vision for a connected and automated vehicle environment encompassing a large segment of southeast Michigan, centered along the freeway and surrounding arterial network in the metropolitan Detroit area. This corridor is a very heavily traveled roadway that literally connects the state end to end. The connected vehicle

environment is envisioned to encompass the four basic foundations of any connected vehicle system; supporting infrastructure, equipped vehicles and/or motorists, data and applications, and the communications network needed to support the system.

MDOT's connected vehicle vision over many years of sustained investment eventually expands outside of the metropolitan Detroit area, resulting in "connected regions", and a "connected state". This vision is shared at both regional and national levels which is demonstrated through continued support and partnership with the USDOT and partner states in AASHTO and the V2I Deployment Coalition.